

**Remarks**

The Office Action mailed September 28, 2004 has been carefully reviewed and was appealed. However, in lieu of an Appeal Brief, this Amendment is being filed. The rejections and objections raised by the Office in the September 28, 2004 Office Action are traversed in detail below.

Claims 1-29 and 31 are now pending in this Application. Claims 30 and 32 were cancelled in an Amendment filed with the Notice of Appeal. Claims 1 and 15 have been amended. No new matter has been added. Claims 1-7, 9, 11-13, 15-21, 23, 25-27, and 29-32 stand rejected. Claims 8, 10, 14, 22, 24, and 28 were objected to.

No extension of time is believed necessary for entry of this Amendment, and the accompanying papers authorize payment of the fees necessary for the filing of an RCE. In the event an additional fee is required for entry of this RCE and Amendment, or if an extension of time is necessary, please consider this as a request for the necessary extension of time and/or an authorization to charge the necessary additional fees to Deposit Account No. 07-0845.

The rejection of Claims 30 and 32 under 35 U.S.C. 112, first paragraph, is respectfully traversed.

Claims 30 and 32 have been cancelled, so the 35 U.S.C. 112, first paragraph rejection no longer applies to these claims and should be withdrawn.

The rejection of Claims 1-5, 9, 11, 15-19, 23, and 25 under 35 U.S.C. 103(a) is respectfully traversed.

For the sake of argument only, let it be assumed that Taguchi discloses all that it was asserted to disclose in the Office Action mailed September 28, 2004. As admitted by the office,

Taguchi still does not disclose a curved plane of reconstruction. Also, as best understood by Applicant, the weighting disclosed by Taguchi is dependent upon view angle and beam switching at certain phase points that can be but are not necessary 180 degrees from one another. See col. 10, line 63 to column 11, line 2 as well as Figures 12 and 14A, and col. 11, lines 15-19. There is no reason for Taguchi to disclose applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows, because Taguchi does not disclose a curved plane of reconstruction.

Also, for the sake of argument, let it be assumed that the Office's assertion that Nambu discloses a curved plane of reconstruction is correct. If this assertion is assumed to be true, then at most, Figure 43 of Nambu teaches only that curved planes of reconstruction are known. Similarly, col. 35, lines 50-52 and col. 43, lines 3-8 do no more than indicate the existence of such reconstructions and do not add anything to Taguchi to teach or suggest applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows.

By contract, Applicant's Claims 1 and 15, as herein amended, recite "applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows" and "applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows," respectively. See the Application as originally filed at page 5, line 17 to page 6, line 7, and especially at page 6, lines 8 to 15, and equations (1)-(4). Also, see page 8, lines 11-14 and equations (8)-(11). It is therefore submitted that Claims 1 and 15 as herein amended are patentable over Taguchi in view of Nambu.

Claims 2-5, 9, and 11 depend directly or indirectly upon Claim 1, as herein amended. When the recitations of Claims 2-5, 9, and 11 are considered in combination with the recitations of Claim 1, it is submitted that Claims 2-5, 9, and 11 are likewise patentable over Taguchi in view of Nambu.

Claims 16-19, 23, and 25 depend directly or indirectly upon Claim 15, as herein amended. When the recitations of Claims 16-19, 23, and 25 are considered in combination with the recitations of Claim 15, it is submitted that Claims 16-19, 23, and 25 are likewise patentable over Taguchi in view of Nambu.

For the above reasons, it is requested that the rejection of Claims 1-5, 9, 11, 15-19, 23, and 25 under 35 U.S.C. 103(a) as being unpatentable over Taguchi in view of Nambu be withdrawn.

The rejection Claims 6-7, 12-13, 20-21, and 26-27 under 35 U.S.C. 103(a) as being unpatentable over the combination of Taguchi and Nambu and further in view of Berlad is respectfully traversed.

For purposes of argument only, let it be assumed that Taguchi and Nambu teach everything asserted by the Office. Even the discussion of using four detector rows cited by the Office at col. 14, line 66 and col. 24, lines 34-45 does not teach or suggest the particular combination recited by Applicant of "applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows."

Also for purposes of argument only, let it be assumed that Berlad teaches everything asserted by the Office. Even so, the asserted disclosure of third order Lagrange weights to a radiation image at col. 4, lines 48-50 does not teach or suggest applying different weighting functions within each detector row dependent upon a division of conjugate regions for each

detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows. Indeed, Berlad does not appear even to mention using different weighting functions within each detector row dependent upon any division of regions, and to the extent  $\beta$  is mentioned at all, and assuming " $\beta$ " is related to Applicant's " $\beta$ ," it is kept constant rather than varied. See col. 5, line 60 to col. 6, line 26. Thus, Berlad adds nothing to the combination of Taguchi and Nambu to teach or suggest applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows.

For the above reasons, it is submitted that Claims 1 and 15 as herein amended are patentable over the combination of Taguchi and Nambu, further in view of Berlad.

Claims 6-7 and 12-13 depend indirectly upon Claim 1. When the recitations of Claims 6-7 and 12-13 are considered in combination with the recitations of Claim 1, it is submitted that Claims 6-7 and 12-13 are likewise patentable over the combination of Taguchi and Nambu, further in view of Berlad.

Claims 20-21 and 26-27 depend indirectly upon Claim 15. When the recitations of Claims 20-21 and 26-27 are considered in combination with the recitations of Claim 15, it is submitted that Claims 20-21 and 26-27 are likewise patentable over the combination of Taguchi and Nambu, further in view of Berlad.

For the above reasons, it is respectfully requested that the rejection Claims 6-7, 12-13, 20-21, and 26-27 under 35 U.S.C. 103(a) as being unpatentable over the combination of Taguchi and Nambu and further in view of Berlad be withdrawn.

The rejection of Claims 29 and 31 under 35 U.S.C. 103(a) as being unpatentable over the combination of Taguchi and Nambu, and further in view of King et al. is respectfully traversed.

Claims 1 and 15 are patentable over the combination of Taguchi and Nambu, as discussed above.

King et al. is directed to an image reconstruction method for reducing image artifacts that result from acquiring tomographic projection data in a helical scan. King et al. disclose reducing skew artifacts by reconstructing an image from the data of two half-scans. See col. 3, lines 52-53. Weights used by King et al. have different values at a line CE separating the half scan projection sets. See col. 9, lines 4-6 and more generally col. 8, line 17 to col. 9, line 37. However, King et al. are not concerned with view angles in a curved plane, nor do King et al. mention or suggest a multislice detector array. Therefore, King et al. add nothing to the combination of Taguchi and Nambu regarding the teaching or suggestion of applying different weighting functions within each detector row dependent upon a division of conjugate regions for each detector row dependent upon view angle and view angles in a curved plane for corresponding detector rows.

For the above reasons, it is submitted that Claims 1 and 15 are patentable over the combination of Taguchi and Nambu and further in view of King et al.

Claim 29 is dependent upon Claim 1. When the recitations of Claim 29 are considered in combination with the recitations of Claim 1, it is submitted that Claim 29 is likewise patentable over the combination of Taguchi and Nambu and further in view of King et al.

Claim 31 is dependent upon Claim 15. When the recitations of Claim 31 are considered in combination with the recitations of Claim 15, it is submitted that Claim 31 is likewise patentable over the combination of Taguchi and Nambu and further in view of King et al.

For the above reasons, it is requested that the rejection of Claims 29 and 31 under 35 U.S.C. 103(a) as being unpatentable over the combination of Taguchi and Nambu and further in view of King et al. be withdrawn.

For the above reasons, it is submitted that the objection to Claims 8, 10, 14, 22, 24 and 28 as being dependent upon a rejected base claim does not apply and should be withdrawn.

Claims 8, 10, 14, 22, 24, and 28 are indicated as being allowable if amended to incorporate the recitations of the base claim and any intervening claims. Claims 8, 10, 14, 22, 24, and 28 depend, directly or indirectly, from their respective independent Claims 1 and 15, which are submitted to be in condition for allowance. When the recitations of 8, 10, 14, 22, 24, and 28 are considered in combination with the recitations of their respective independent Claims 1 and 15, Applicant submits that dependent Claims 8, 10, 14, 22, 24, and 28 are also in condition for allowance.

In view of the foregoing remarks, this application is believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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